PROBLEM STATEMENT

Paralleization of queries to improve dbms performance and to reduce waiting time for query execution. Currently a thread based DAG scheduler has been coded to acheive the parallel execution of queries. Every query is threaded to and executed in the DB. Since few queries are dependent (try and access same columns of the DBMS). We have implemented a Mutual lock based thread algorithm. Still there is a need to priotorize queries to avoid any Raw Hazard.

An algorithm is needed to priorotize waiting queries. All non dependant queries gets executed parallely. Kindly consider the following commands for testing the algorithm.

Select Queries - Reading the records from DB .
Update Queries - Updating the records from DB.
Insert Queries – Inserting into the records from DB.
Delete Queries – Droping the tables from DB.
Modification Queries - Adding & deleting columns in a table from DB

Conditions:
Conditions are as follows:
1. The database state should be consistent at any instance of the time.
2. All non dependant queries must not wait for any queries.
3. No two dependant queries should execute at the same time.
4. Algorithm should ensure minimum waiting time for dependant queries.